



A Minority University Research and Education Program (MUREP)

NASA Innovations in Climate Education



**New PI Orientation Meeting
and Training Workshop
June 11-13, 2014**



Presented by

Monica H. Barnes

Agency NICE

Project Manager

NASA Langley Research Center



Our Strategic Goals

Goals

- Use NASA's unique contributions to Climate and Earth System Science to collaborate with *Tribal Colleges and Universities* to improve the quality of the Nation's STEM Education (Science, Technology, Engineering and Mathematics).



Monica H. Barnes, Agency NICE Project Manager



Our Strategic Focus Areas



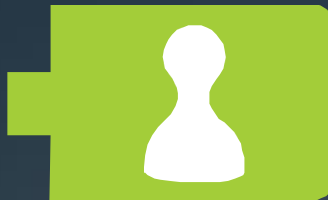
Increase the level of climate literacy and engagement with public audiences.

Create a diverse, highly skilled, and motivated future workforce in climate-related sciences.

Advance the understanding of how to effectively teach global climate change concepts.

Support, facilitate, and build the capacity of a community of climate change partnerships, educators, evaluators, and networks.

Connect NASA climate science to pre- and in-service educators and students by developing successful activities, experiences, and various resources.



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MUREP NICE – A Definition



75 Project Activities

Competitive Collaboration Project

STEM

Education

Designed to increase the access of underrepresented minority groups to science careers and educational opportunities

Promotes Climate & Earth System Science Literacy



Unique
NSF & NOAA
& Science Mission

Partnership

NASA Ed. Office

Directorate

Va. Space Grant

Consortium (VSGC)

Supporting Partners

Leverages NASA's Unique Contributions in Climate Science

GLOBAL CLIMATE CHANGE

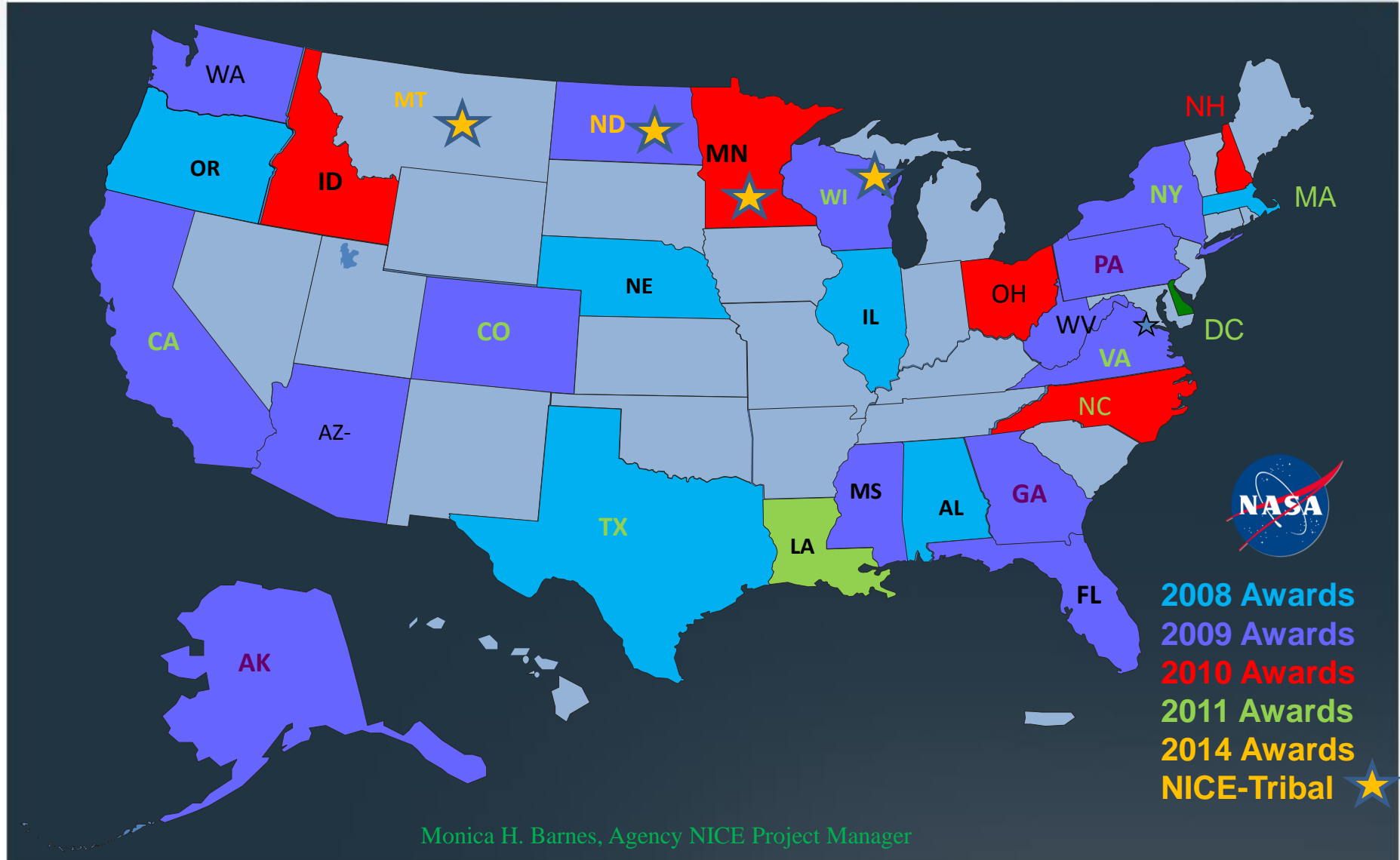
Developing a Diverse
21st Century Workforce in
Climate-Related Sciences



Monica H. Barnes, Agency NICE Project Manager



MUREP NICE Projects Locations





Some NICE Tools

“Ask NICE”

We'll bring the content. You bring the questions.

Click here for more information, or to join a session in progress.

Online sessions covering Earth System Science topics.
Join us every third Thursday of the month!



FACE-TO-FACE AND VIRTUAL PI MEETINGS

Principal Investigators

Improving the quality of STEM Ed. & enhancing climate literacy

**NASA Digital
Learning
Network**



TrACE



**Meta-Evaluation and
Social Network Analysis**

*Educator
Professional
Development
(EPD)
Workshops*

Community Discussions
**(Monthly) – Virginia Space
Grant Consortium (VSGC)**





We are Making a Difference!

Accomplishments

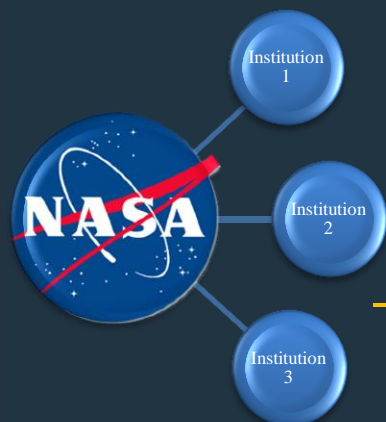


- **Strengthened collaborations with Native American/Tribal K-12 and Higher Education communities** by presenting **2013-2014 NICE-T** solicitation. Successfully reviewed and recommended selections for four institutions, which were awarded in May 2014.
- **Strengthened Tri-agency collaboration with NSF & NOAA** (supports Co-STEM initiative): formation of **Common Evaluation Working Group and Common Logic Model**, which is significant for continuing to build a strong community of practice.
- **Developed the Tri-Agency Climate Education (TrACE) Catalog** of 200+ resources from NASA, NSF, and NOAA.

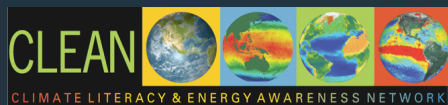


We are Making a Difference!

Accomplishments (cont'd)



- **Conducted significant Meta-Evaluation of NICE project portfolio**, which revealed over 375 unique connections originating from the 71 initial projects and a host of other successes spawning from these projects awarded since 2008.
- **Distinguished NICE Alumni– Amazing Products Developed**
 - PI Tamara Ledley developed the Climate Literacy and Energy Awareness Network (CLEAN) – Was awarded Educator of the Year at AGU 2013
 - PI David Blockstein now leads the National Council for Science and the Environment (NCSE) which has a yearly conference for climate science professionals
 - PIs Ellen Metzger & Eugene Cordero created the Green Ninja Climate Change Superhero (see YouTube clips)
 - PI Dan Zalles has developed software for teachers to use Giovanni data and new university courses and curricula
 - PI Marina LaGrave has translated over 75 NASA resources into Spanish (see TrACE catalogue)



Español



We are Making a Difference!

Accomplishments (cont'd)



– **Significantly Built Up the NICE Community**

- Members of this community actually have established relationships and collaborations amongst themselves and have exchanged advice as well as lessons learned
- Each PI now has a collection of colleagues with the same interests, even if they are the only climate-related researcher at a small Community College

– **Reached over 11,000 Elementary and Secondary Students, 7500 Undergraduate & Graduate Students, and 3800 educators through NASA climate related educational activities.**

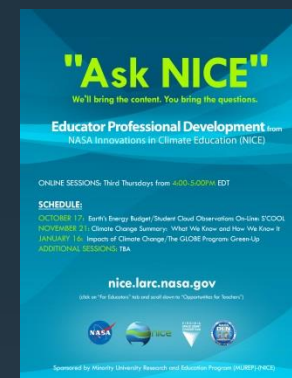




We are Making a Difference!

Accomplishments (cont'd)

- **Expanded MUREP NICE's virtual reach** to thousands of additional participants through NASA's Digital Learning Network (DLN). Also utilized DLN to present workshops virtually to reduce travel costs and carbon footprint.
- **Developed inaugural season of "Ask NICE" series**, which reached over 1100 unique participants with the addition of the Educational Professional Development (EPD) Manager and additional EPD partnerships.
- **Held four Climate Change PI meetings** (including orientations, virtual PI meeting, and one even held during the government furlough).





What's Next for NICE?



On the Horizon

- **Infusing NICE-Tribal PIs into NICE Community:** Holding New PI Orientation Meeting and Training Workshop June 2014. Providing additional NASA Shared Services Center (NSSC) Grants and Reporting Requirements workshop planned for October 2014.
- **Increase Native American conference presence:** Planning discussions for participating in the American Indian Higher Education Consortium (AIHEC), American Indian Science and Engineering Society (AISES), Society for the Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS), and more.





What are we up to next?



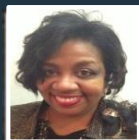
- **Expanding MUREP NICE's virtual reach** through additional EPD collaborations and via NASA's Digital Learning Network (DLN). **Kicking off new “On the Road with Ask NICE” series in August 2014**, with additional collaborations in EPD planned for reaching educators throughout the year with the “Ask NICE” series. Also expanding **“Rockets to Racecars – NICE Go-Green Edition”** in collaboration with EPD.



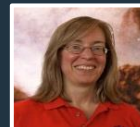
- **Extend Community Discussions to more TCUs.**
- **Hosting Climate Change PI Fall 2014 Meeting** (pending Tri-Agency participation and other outcomes).



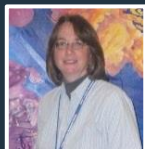
The NICE Management Team



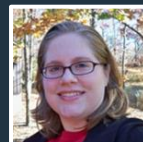
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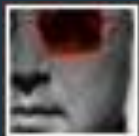
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Questions?



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